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notify the FCC (FCC Form 489) as soon as this requirement is met. Service to subscribers may commence as soon as the notification is mailed. If service to subscribers is not commenced at that time, the notification must contain a statement to this effect.

(b) Stage II. At least 50 ground stations must be constructed and operational within 5 years. Nationwide service to subscribers must commence within 5 years. Licensees must notify the FCC (FCC Form 489) as soon as these requirements are met.

§ 22.875 Commercial aviation airground system application requirements.

Existing and prospective common carriers may file applications for authority to construct and operate a new nationwide air-ground system on the channels listed in §22.857 only during window filing periods that may be announced by the FCC in Public Notices. In addition to the requirements elsewhere in this part, such applications must contain the following exhibits:

- (a) Written agreement. A signed agreement between the applicant and at least one airline or airline organization, authorizing the applicant to provide air-ground service on its aircraft.
- (b) Financial qualifications. At the time of filing its application an applicant must demonstrate that it has either a firm financial commitment or available financial resources necessary to construct 50 ground stations and operate for one year after initiation of nationwide air-ground service its proposed air-ground system.
- (1) The demonstration of commitment must include and be sufficient to cover the realistic and prudent estimated costs of construction of 50 ground stations, operation and other initial expenses for one year after initiation of nationwide air-ground service. The estimated costs, operation costs and other initial expenses must be itemized. The estimated costs must include the anticipated costs of construction of each ground station.
- (2) The firm financial commitment required above must be obtained from a state or federally chartered bank or savings and loan association, or the financial affiliate or subsidiary of an

equipment supplier, and must contain a statement that the lender:

- (i) Has examined the financial condition of the applicant including audited financial statements, and has determined that the applicant is credit worthy;
- (ii) That the lender is committed to providing a sum certain to the particular applicant;
- (iii) That the lender's willingness to enter into the commitment is based solely on its relationship with the applicant; and
- (iv) That the commitment is not in any way guaranteed by any entity other than the applicant.
- (3) Applicants intending to rely on personal or internal resources must submit:
- (i) Audited financial statements certified within one year of the date of the application, indicating the availability of sufficient net liquid assets to construct and operate the proposed airground system for one year.
- (A) The auditors must be certified public accountants.
- (B) Net liquid assets is considered to be the excess of current assets (readily converted to cash) over current liabilities. In order to demonstrate ready convertibility into cash, the identity, liquidity and value of listed assets must be demonstrated. Non-liquid assets can be relied on if the marketability of those assets is documented.
- (ii) An audited balance sheet, current within 60 days of filing, which clearly shows the continued availability of sufficient net liquid assets to construct and operate the proposed air-ground system for one year after nationwide service begins.
- (c) Service Plan. A service plan containing:
- (1) A map or other description of the planned geographic coverage area, including air space over the continental United States, Alaska, Hawaii and other United States territories.
- (2) A schedule for construction of 50 ground stations and provision of nationwide service to subscribers within 5 years from the grant of the initial authorization.
- (3) A description of how the system will interconnect with the landline telephone network and be integrated

with other air-ground systems, including a statement as to whether the system will be interconnected with international air-ground systems.

- (d) *Technical Exhibit.* A technical description of the proposed system demonstrating compliance with all applicable technical requirements and describing how the proposed system would operate, if authorized. This exhibit must provide the following information:
- (1) The number of ground stations to be used, their locations, and the type and quantity of equipment proposed for the system;
- (2) A complete description of the procedures and data protocols to be used on the control channel;
- (3) The modulation types to be used and their spectral characteristics;
- (4) The effective radiated power and transmitter peak envelope power for all transmitters at each ground station location, and the effective radiated power of the airborne mobile stations;
 - (5) Antenna information as follows:
- (i) For airborne mobile stations, the antenna type(s) to be used;
- (ii) For ground stations, vertical and horizontal radiation patterns, antenna heights above ground level, antenna support structure heights above ground level, ground elevation above mean sea level and any relevant information (e.g. FAA approval) that may be helpful in determining whether ground station antennas require marking and lighting;
- (6) Analytical data, including calculations, of potential interference within and without the spectrum for the air-ground system;
- (7) A statement in compliance with the National Environmental Policy Act of 1969. See §§1.1301 through 1.1319 of this chapter.

Subpart H—Cellular Radiotelephone Service

§22.900 Scope.

The rules in this subpart govern the licensing and operation of cellular radiotelephone systems. Licensing and operation of these systems are also subject to rules elsewhere in this part that apply generally to the Public Mobile Services. In case of conflict, however, the rules in this subpart govern.

§22.901 Cellular service requirements and limitations.

Cellular system licensees must provide cellular mobile radiotelephone service upon request to all cellular subscribers in good standing, including roamers, while such subscribers are located within any portion of the authorized cellular geographic service area (see §22.911) where facilities have been constructed and mobile service to subscribers has commenced. A cellular system licensee may refuse or terminate service, however, subject to any applicable state or local requirements for timely notification to any subscriber who operates a cellular telephone in an airborne aircraft in violation of §22.925 or otherwise fails to cooperate with the licensee in exercising operational control over mobile stations pursuant to §22.927.

- (a) Service area information. Licensees must inform prospective subscribers of the area in which reliable service can be expected.
- (b) Lack of capacity. If a licensee refuses a request for cellular service because of a lack of system capacity, it must report that fact to the FCC in writing, explaining how it plans to increase capacity.
- (c) *Dispatch service*. Cellular systems may provide dispatch service.
- (d) Alternative technologies and co-primary services. Licensees of cellular systems may use alternative cellular technologies and/or provide fixed services on a co-primary basis with their mobile offerings, including personal communications services (as defined in Part 24 of this chapter) on the spectrum within their assigned channel block. Cellular carriers that provide mobile services must make such service available to subscribers whose mobile equipment conforms to the cellular system compatibility specification (see §22.933).
- (1) Licensees must perform or obtain an engineering analysis to ensure that interference to the service of other cellular systems will not result from the implementation of co-primary fixed services or alternative cellular technologies.
- (2) Alternative technology and co-primary fixed services are exempt from the channeling requirements of §22.905, the modulation requirements of §22.915,